SQL Server Training Syllabus

Session 1

Introduction

- Relational Databases and Normalization
- Management Studio Overview

Database design

- Database and table creation
- Data Types
- Schemas
- Primary keys and auto increment
- Foreign key and diagrams
- Constraints and defaults
- ALTER TABLE command
- Database Diagrams

Session 2

SQL Coding

- Simple selects
- Functions and type conversions
- WHERE clause logic
- Handling NULLs
- Inner and outer joins

Performance, Execution Plans and Indices

Session 3

SQL Coding II

- Subqueries, CTEs and temp tables
- Correlated sub-queries, EXISTS statement
- Set Functions
- Window functions
- Aggregate queries

Transactions and Deadlocks

Session 4

Security

- Logins versus users
- Roles

Session 5

SQL Programming

- Views
- Triggers
- Stored Procedures
- Functions
- Error Handling
- Cursors

SQL Injection Attacks

Session 6

Backup and Restore

SQL Maintenance

- Scheduling Backups
- Performance and Execution Plans
- Handling index fragmentation and Statistics rebuilds

SQL Installation Considerations

Server Monitoring

Logs